

# Raw Sequence Listing Error Summary

## ERROR DETECTED SUGGESTED CORRECTION

SERIAL NUMBER: 09/830,706

ATTN: NEW RULES CASES: PLEASE DISREGARD ENGLISH "ALPHA" HEADERS, WHICH WERE INSERTED BY PTO SOFTWARE

- 1        Wrapped Nucleics      The number/text at the end of each line "wrapped" down to the next line.  
This may occur if your file was retrieved in a word processor after creating it.  
Please adjust your right margin to .3, as this will prevent "wrapping".
- 2        Wrapped Aminos      The amino acid number/text at the end of each line "wrapped" down to the next line.  
This may occur if your file was retrieved in a word processor after creating it.  
Please adjust your right margin to .3, as this will prevent "wrapping".
- 3        Incorrect Line Length      The rules require that a line not exceed 72 characters in length. This includes spaces.
- 4        Misaligned Amino Acid      The numbering under each 5th amino acid is misaligned. This may be caused by the use of tabs  
Numbering      between the numbering. It is recommended to delete any tabs and use spacing between the numbers.
- 5        Non-ASCII      This file was not saved in ASCII (DOS) text, as required by the Sequence Rules.  
Please ensure your subsequent submission is saved in ASCII text so that it can be processed.
- 6        Variable Length      Sequence(s)        contain n's or Xaa's which represented more than one residue.  
As per the rules, each n or Xaa can only represent a single residue.  
Please present the maximum number of each residue having variable length and  
indicate in the (ix) feature section that some may be missing.
- 7        PatentIn ver. 2.0 "bug"      A "bug" in PatentIn version 2.0 has caused the <220>-<223> section to be missing from amino acid  
sequence(s)       . Normally, PatentIn would automatically generate this section from the  
previously coded nucleic acid sequence. Please manually copy the relevant <220>-<223> section  
to the subsequent amino acid sequence. This applies primarily to the mandatory <220>-<223>  
sections for Artificial or Unknown sequences.
- 8        Skipped Sequences      Sequence(s)        missing. If intentional, please use the following format for each skipped sequence:  
(OLD RULES)      (2) INFORMATION FOR SEQ ID NO:X:  
                         (i) SEQUENCE CHARACTERISTICS:(Do not insert any headings under "SEQUENCE CHARACTERISTICS")  
                         (xi) SEQUENCE DESCRIPTION:SEQ ID NO:X:  
                         This sequence is intentionally skipped  
  
Please also adjust the "(iii) NUMBER OF SEQUENCES:" response to include the skipped sequence(s).
- 9        Skipped Sequences      Sequence(s)        missing. If intentional, please use the following format for each skipped sequence.  
(NEW RULES)      <210> sequence id number  
                         <400> sequence id number  
                         000
- 10        Use of n's or Xaa's      Use of n's and/or Xaa's have been detected in the Sequence Listing.  
(NEW RULES)      Use of <220> to <223> is MANDATORY if n's or Xaa's are present.  
In <220> to <223> section, please explain location of n or Xaa, and which residue n or Xaa represents.
- 11        Use of "Artificial"      Use of "Artificial" only as "<213> Organism" response is incomplete, per 1.823(b) of New Sequence Rules.  
(NEW RULES)      Valid response is Artificial Sequence.
- 12        Use of <220>Feature      Sequence(s)        are missing the <220>Feature and associated headings.  
(NEW RULES)      Use of <220> to <223> is MANDATORY if <213>ORGANISM is "Artificial Sequence" or "Unknown"  
Please explain source of genetic material in <220> to <223> section.  
(See "Federal Register," 6/01/98, Vol. 63, No. 104, pp. 29631-32) (Sec. 1.823 of new Rules)
- 13        PatentIn ver. 2.0 "bug"      Please do not use "Copy to Disk" function of PatentIn version 2.0. This causes a corrupted  
file, resulting in missing mandatory numeric identifiers and responses (as indicated on raw sequence listing).  
Instead, please use "File Manager" or any other means to copy file to floppy disk.

PCT

RAW SEQUENCE LISTING  
PATENT APPLICATION: US/09/830,706

DATE: 05/18/2001  
TIME: 10:56:57

Input Set : A:\M3-007PCT\_SEQ.txt  
Output Set: N:\CRF3\05182001\I830706.raw

Does Not Comply  
Corrected Diskette Needed

*pp1-2/13*

4 <110> APPLICANT: Medical & Biological Laboratories Co., Ltd.  
7 <120> TITLE OF INVENTION: Thioredoxin reductase II  
10 <130> FILE REFERENCE: M3-007PCT  
12 <140> CURRENT APPLICATION NUMBER: US/09/830,706  
13 <141> CURRENT FILING DATE: 2001-04-27  
15 <150> PRIOR APPLICATION NUMBER: JP 1998-310422  
16 <151> PRIOR FILING DATE: 1998-10-30  
18 <160> NUMBER OF SEQ ID NOS: 37  
20 <170> SOFTWARE: PatentIn Ver. 2.0

# ERRORED SEQUENCES

451 <210> SEQ ID NO: 4  
452 <211> LENGTH: 492  
453 <212> TYPE: PRT  
454 <213> ORGANISM: Homo sapiens  
455 <223> OTHER INFORMATION: Xaa(493) means selenosysteine.  
457 <400> SEQUENCE: 4  
458 Met Glu Asp Gln Ala Gly Gln Arg Asp Tyr Asp Leu Leu Val Val Gly  
459 1 5 10 15  
461 Gly Gly Ser Gly Gly Leu Ala Cys Ala Lys Glu Ala Ala Gln Leu Gly  
462 20 25 30  
464 Arg Lys Val Ala Val Val Asp Tyr Val Glu Pro Ser Pro Gln Gly Thr  
465 35 40 45  
467 Arg Trp Gly Leu Gly Gly Thr Cys Val Asn Val Gly Cys Ile Pro Lys  
468 50 55 60  
470 Lys Leu Met His Gln Ala Ala Leu Leu Gly Gly Leu Ile Gln Asp Ala  
471 65 70 75 80  
473 Pro Asn Tyr Gly Trp Glu Val Ala Gln Pro Val Pro His Asp Trp Arg  
474 85 90 95  
476 Lys Met Ala Glu Ala Val Gln Asn His Val Lys Ser Leu Asn Trp Gly  
477 100 105 110  
479 His Arg Val Gln Leu Gln Asp Arg Lys Val Lys Tyr Phe Asn Ile Lys  
480 115 120 125  
482 Ala Ser Phe Val Asp Glu His Thr Val Cys Gly Val Ala Lys Gly Gly  
483 130 135 140  
485 Lys Glu Ile Leu Leu Ser Ala Asp His Ile Ile Ile Ala Thr Gly Gly  
486 145 150 155 160  
488 Arg Pro Arg Tyr Pro Thr His Ile Glu Gly Ala Leu Glu Tyr Gly Ile  
489 165 170 175  
491 Thr Ser Asp Asp Ile Phe Trp Leu Lys Glu Ser Pro Gly Lys Thr Leu  
492 180 185 190  
494 Val Val Gly Ala Ser Tyr Val Ala Leu Glu Cys Ala Gly Phe Leu Thr  
495 195 200 205  
497 Gly Ile Gly Leu Asp Thr Thr Ile Met Met Arg Ser Ile Pro Leu Arg  
498 210 215 220

*insert this mandatory  
numeric  
identifier  
wherever <221>  
<222>, or <223>  
is shown*

*(Please correct  
all sequences  
showing this  
err.)*

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500 Gly Phe Asp Gln Gln Met Ser Ser Met Val Ile Glu His Met Ala Ser  
 501 225 230 235 240  
 503 His Gly Thr Arg Phe Leu Arg Gly Cys Ala Pro Ser Arg Val Arg Arg  
 504 245 250 255  
 506 Leu Pro Asp Gly Gln Leu Gln Val Thr Trp Glu Asp Ser Thr Thr Gly  
 507 260 265 270  
 509 Lys Glu Asp Thr Gly Thr Phe Asp Thr Val Leu Trp Ala Ile Gly Arg  
 510 275 280 285  
 512 Val Pro Asp Thr Arg Ser Leu Asn Leu Glu Lys Ala Gly Val Asp Thr  
 513 290 295 300  
 515 Ser Pro Asp Thr Gln Lys Ile Leu Val Asp Ser Arg Glu Ala Thr Ser  
 516 305 310 315 320  
 518 Val Pro His Ile Tyr Ala Ile Gly Asp Val Val Glu Gly Arg Pro Glu  
 519 325 330 335  
 521 Leu Thr Pro Thr Ala Ile Met Ala Gly Arg Leu Leu Val Gln Arg Leu  
 522 340 345 350  
 524 Phe Gly Gly Ser Ser Asp Leu Met Asp Tyr Asp Asn Val Pro Thr Thr  
 525 355 360 365  
 527 Val Phe Thr Pro Leu Glu Tyr Gly Cys Val Gly Leu Ser Glu Glu Glu  
 528 370 375 380  
 530 Ala Val Ala Arg His Gly Gln Glu His Val Glu Val Tyr His Ala His  
 531 385 390 395 400  
 533 Tyr Lys Pro Leu Glu Phe Thr Val Ala Gly Arg Asp Ala Ser Gln Cys  
 534 405 410 415  
 536 Tyr Val Lys Met Val Cys Leu Arg Glu Pro Pro Gln Leu Val Leu Gly  
 537 420 425 430  
 539 Leu His Phe Leu Gly Pro Asn Ala Gly Glu Val Thr Gln Gly Phe Ala  
 540 435 440 445  
 542 Leu Gly Ile Lys Cys Gly Ala Ser Tyr Ala Gln Val Met Arg Thr Val  
 543 450 455 460  
 545 Gly Ile His Pro Thr Cys Ser Glu Glu Val Val Lys Leu Arg Ile Ser  
 546 465 470 475 480  
 548 Lys Arg Ser Gly Leu Asp Pro Thr Val Thr Gly Cys Xaa Gly  
 549 485 490

934 &lt;210&gt; SEQ ID NO: 37

935 &lt;211&gt; LENGTH: 66566

936 &lt;212&gt; TYPE: DNA

937 &lt;213&gt; ORGANISM: Homo sapiens

939 &lt;400&gt; SEQUENCE: 37

940 atggcggcaa tggcgggtggc gctgcgggga ttaggagggc gcttccggtg gcggacgcag 60  
 942 gccgtggcgg gcgggggtgcg gggcgcgggc cggggcgag caggtaggat ggggtcgggg 120  
 944 cgtccccgcg gtaggtgtcc gcgcggccgg ggtgtcctcg tgagggtgtc cgcgcggcgg 180  
 946 tggccagggt gtccccgtgg ggggtgccac gcgggggtgt ccacataccg gcctcttggt 240  
 948 ctagtcttgc tcaggagtcc gggtgtcttc tagccacaag tagccccctt cccagggtggg 300  
 950 gaaactgggg ctgggtgcct tgtctaaggt cctgctgtgc tgactgcacc tgtggtctcc 360  
 952 cagagctggt atcccagtaa caactacagt tctgaagatg atgatatccc acctcccgag 420  
 954 gtcaccaggc accggcccca ctggccagac ttcccaactt ctccccagac ccctagactc 480  
 956 tagaggtag aggtgcaca gagcaatggg aggatacaca ctgcgtctcc tggagccctc 540  
 958 gaagaacagt taactaaatc aggacaataa tcataactga gcactcgaag cagaggctgg 600

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960	gtgtctggtc	actcaggaca	gttcaagcct	catcctgtag	gacagactcc	cctagatccg	660
962	accagagcgc	caccatatct	gttatgtgtg	gccagtttca	ttccatgcac	gacaacatgg	720
964	tccccacca	tgcagggggc	ccctcgaccc	agccccctgg	atgcttgtga	cagcgagcag	780
966	ctctcccac	aggcagtga	tgtagagggg	tgtaaaggacg	gggtcagggc	tccttcccag	840
968	ggatggcggc	tatgggaggc	atgggtggctg	gccctctgcc	cgcggtggac	tcgggaggga	900
970	gggctgactg	tgtgtgtgaa	tgggcagagt	tgggtctatg	gaggtttttg	gggtctccag	960
972	gacggagggt	ggcccaacag	agttctggga	ggcagtcacc	acctcgtggc	cttgctgaga	1020
974	cctggaaccc	tcagccaggg	cactccatct	ttcaaagctt	cttggtcgca	tgcgtcaggt	1080
976	gggcaagctc	aggaaggtta	aatgcacccg	tgctggcgga	gtcccataaa	aggggattcg	1140
978	gcatcaaaa	gaggaaaaag	gttcaaagg	catttatcat	ggggttcaga	atcacggatg	1200
980	tgaggggcgg	tagtggggac	aacagacaga	aaagcttccc	cttccatac	tcacagtcca	1260
982	gacacggcaa	tagccaaatt	ccaaatttct	aggtattctg	gactcagaat	ggggaatatc	1320
984	atacgagact	tagggggata	atgcccttat	cttcctattt	taagggaaag	aacaaactga	1380
986	accttctatg	caaaatagga	tgatgatcct	ggtcctocca	gtaagaaata	aaataagtag	1440
988	tctccaggca	ttcctttccg	ccagaggagc	aactgttttt	taaataagccc	tttcgtgccc	1500
990	agtctgttac	taaaccatat	gagttgtttt	tttgggggtt	tttttttttt	tttttttttg	1560
992	agacagtgtc	tgtctctgtc	gcccaagctg	gagtacagtg	gtgcgatctc	agctcactgc	1620
994	aagctccgcc	tcccgggttc	acgccattct	cctgcctcag	cctcccagtg	agctgggact	1680
996	acaggcatct	gccaccacgc	ctggctaatt	ttttttgtat	tttttagtaga	gacgggattt	1740
998	cactgtatta	gccaggatgg	tctcaatctc	ctgacctcat	gatccacctg	ccttggcctc	1800
1000	ccaaagtgtc	gggattacag	gcatgagcca	ctgcgcccag	ccgagtcatt	ttttaatact	1860
1002	actgcatgtg	agttaacaca	atcattccca	aattgaagtt	ttagatgggc	cctcaaaatt	1920
1004	tttaggatat	ggttttccta	caggtttata	ttgaaagtat	ggggtatctc	ctattactcc	1980
1006	tctttttatt	tgtctttaa	gagaaaggga	gaggccagag	accaaattgc	cccatttccc	2040
1008	tatagctaat	ctctctggaa	gacaagcagc	ccagacttga	gcttctagat	ggatacaacc	2100
1010	aggtgcatgt	ccaaggcaca	gaggagggtt	tttataaccc	atagtaacat	taaatgcagt	2160
1012	gccttctcct	ggctgagcgg	tgcaacggtc	atctgtagtt	ccaggcatcc	acacactatc	2220
1014	gttagtatag	atttctgcag	gagcatccat	ccagggtgaga	ggtcgaataa	gtggaggaaa	2280
1016	aggcacataa	gcccataaag	aataattttg	tgtagcaggt	aaatcagttt	aaggggaaac	2340
1018	tggtagagca	gaaagtgtaa	ggaagataat	tattaaataa	aacctattgt	aagttagatc	2400
1020	cagtgtgtaa	ggaggaaag	aagaacagag	ggatgttatt	ttcaggctaa	tagaaatggg	2460
1022	gagattttta	ggttcgtaag	gagaaaaaga	taattaggag	aagtgggatt	agtttagagg	2520
1024	gtttacattg	ccattaggga	ggattgaacc	agaccattt	tgatttgcca	tgccagtttc	2580
1026	tgaggagtgc	gtacagatct	catcagggtt	gagggcagtc	tctgacgcga	acgtctcttc	2640
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1036	ttagaaagct	taaacaatgc	taaataataat	tgggagtggt	gagtagttaa	attatgcttt	2940
1038	taaaccagcc	ttgtcttctt	ttacagtaac	ttgaagaggt	ttagtaattt	tttcacgttt	3000
1040	tggaccgaga	ccgagtctgg	aaacaaaccc	catgttttcc	attatatgtt	gactggggagc	3060
1042	actgtaaaa	ttatgtggaa	tattaatttc	agcccccaatt	tgtgccagca	aatctctgcc	3120
1044	ccgaagatta	atggggatgg	gcatgatata	aggctgaatt	gttccctttt	gaccatcagg	3180
1046	gccagtgcaa	gcgaagataa	atgtgctctg	gtgaacttct	tcagcttttc	taacaccttc	3240
1048	tagtttcatg	ttagtgggat	gtttaagcca	ggaggaaggc	cataaattag	aggaaataat	3300
1050	agaaacatca	gccccagtat	caactaggcc	ctcaaccttt	tttccttgaa	tgtgtatggg	3360
1052	gcaggtaggc	cattgttttag	aaattacatt	aatccaataa	gcggcttttt	caccgctgga	3420
1054	gcccattccca	gggccccatg	tcttatctcc	tttgtttaaa	acaatgttag	gtagtaaaaag	3480
1056	taattgagca	attgactcac	tggccggaat	ggaaacagga	actttggcag	acaccataag	3540

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1058	tttacataag	tttaatctca	tcagaggaaat	cagaattaat	gagactagta	tgaactatga	3600
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1062	aaagggccag	tgacccccat	ggggacaatt	aaaggcaaag	aattaggtag	taaattttaga	3720
1064	ggaatggtac	tacagagatc	gaccgccttg	ctgcctactg	tggaggtaga	caagcattgt	3780
1066	actgagacag	aagaagaggg	tgggacccat	ctggattggc	tgtaggtaaa	tttttttgtg	3840
1068	ctgggggctg	cggtgggact	gcttgacgca	aaaacacaac	attggtctga	gtccgaggtg	3900
1070	tcccatttga	tattggggcc	tgggactggc	cttgcttctt	gtttccctgg	ttctgtggca	3960
1072	agggattttc	atctatatca	gactgagtgg	caagtacttg	cccaatgttt	acccttacga	4020
1074	caacgcaggc	aaacagtagc	aggagcattt	ggccgtggtt	gttgagccgg	cttggccgct	4080
1076	tttaagtttt	taacagtgta	gttttttttg	gtatgaccaa	gttggccaca	attatagcag	4140
1078	gctccaagaa	aagaatcagt	cgagccagtt	tgggtgccgt	gcttcatggc	cggtgcccac	4200
1080	agaatagctc	tgtgggtctc	cgatccaacg	ccttcacaag	ctttaatata	tgcaggcaac	4260
1082	acctcatgat	caggtaaatt	ttgacgtagg	atggaatgca	cggccatttt	acactcatgg	4320
1084	ttcgcatttt	gaaaagctaa	catatgaaga	agaatacctt	gagtgtgctc	atcagagaca	4380
1086	gatttttcaa	cagcatcttg	taatttagct	aaaaaatcaa	gatataattc	attgtgaccc	4440
1088	tgtttaacaa	tagtaaaaga	aacagaagct	tggcctgggg	tgcgtaattt	atcccaagct	4500
1090	ctcatcacaca	cctttgttac	ttgttcogtg	gtgagagcat	caaagcctaa	atgagcagta	4560
1092	gtatcagagt	aattatcgga	gcctgtgagc	tgagcctgag	taattggaat	gccatcagcc	4620
1094	cgatttagct	gagcctgcag	gcgggcctcc	tctgaccacc	aggtatggaa	ttgtaaatgc	4680
1096	tgagatggag	ttagaacagc	ttttgccaaa	aggtcgcagt	ctataggaag	caaaatgacc	4740
1098	tcggtacaaa	gagtctgtaa	tacgttttaa	catatggaga	agtaggaaca	tactgagtac	4800
1100	aagcatcctt	gaattctttt	aaaaaggtaa	gattgagcgg	cgtatatcga	cacacttgta	4860
1102	cccttgagc	attagagggt	tccagcatga	ccgaataagc	ccacgcctct	aatctacttg	4920
1104	tttggttttg	cgtaataagc	attgcatgaa	agtttcaaga	gcaggcacat	gagatagagt	4980
1106	cgcatagaa	gtgacaggaa	aagtatgtat	agataagaga	aactgagatt	gacggggtcg	5040
1108	gactggtata	agagtgtgag	aaaggggcat	tgggggagca	gaagaggcag	aagcatactg	5100
1110	gtgattactg	gcccagtcct	gcacaaccag	agtggcaggg	gtgtccctgc	atgaagaagg	5160
1112	gtacagagaa	gcaggttgag	tggatggcaa	agtgaccggg	tgagggacca	aaatgatagg	5220
1114	aggggtgagg	gctgtggtgg	atgggggagg	gcctgcagaa	ttacaggtaa	attgtagttt	5280
1116	ggatggctcc	ggaggcaaa	actgtaaaag	tttgagagag	gaagagttag	catagatatg	5340
1118	gtcctgggct	gtctgagttg	gggcccaggg	agctacaagt	gtcggctctt	cgtgaaaaga	5400
1120	aataagatca	tcagggggtg	atgttaagcc	aaagtcaact	gagttagata	ttgaatcctc	5460
1122	agtatcgtca	ggtgggggag	gagtaggcaa	agggaggggc	tgagcagata	atgaaggccg	5520
1124	agtgggagag	gaaagctgag	gaagaggtag	agggtggcca	gattcagaaa	actgtggtaa	5580
1126	ctgcagggtg	tcacgggatt	ggtatgtcat	taggatggca	cgtaccaagg	cccaatcacc	5640
1128	ccaaacagtg	acaggaacat	aatttctctg	tgggaccagt	tctcggaatt	ttgcaccaac	5700
1130	atgatcccat	agttcccat	ctaacgttcc	cttttcagga	aaccaaggac	agtgttcttc	5760
1132	cactgccttg	aataggggtg	ccatattttc	catgggaacc	cgaactcccc	cattttaaca	5820
1134	ggaattttaat	atagcagaga	taagcataat	gtttagactc	tgcgtgaccc	atagttaccc	5880
1136	cggagaatac	acagacaact	caccaatcgt	tggggagcca	aacaagcatt	tctgtggact	5940
1138	ggaccgatga	acatttctcc	gcacctacca	aagggaatcg	ggttcccaca	tgcacttagg	6000
1140	aaaaagaaaa	ccacgttggt	cgccagatat	tgggggaacc	tgcccctaatt	atttcaacgt	6060
1142	acgttctttc	tattttctgt	aagtgtcagc	cggctgagaa	atgaagagaa	agagtacaaa	6120
1144	gaggaatttt	acagctgggg	tgctgggggt	gacatcacgt	atcggtagga	ccatgatgcc	6180
1146	cacctgagcc	gcaaaaccag	caagttttta	ttaaggattt	taaaagggga	ggggttgtgc	6240
1148	caatagggag	taggtcacia	agatcacatg	cttcaaaggg	caaaaggcag	agcaaagatc	6300
1150	acatgcttct	gaggaaacag	gacaagggca	aaatcagaac	tcctgataag	ggtctatggt	6360
1152	cagctgtgca	catattgtct	tgataaacat	cttaaacaac	ggaaaacatg	gtttaagagc	6420
1154	agagaaccag	tctgaccaca	aatttaccag	gacggagttt	tttccccacc	ctaataagcc	6480

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1156	tgaggggtact	gcaggagacc	agggcggtatt	tcagtcctta	tctcaaccgc	ataagacaga	6540
1158	cactcccaga	gtggccggtt	acagacctcc	ccccaggaat	gcattccctt	tccagggtct	6600
1160	taatagtaat	attccttgct	aggaaaagaa	tttagcgata	tctctcctac	ttgcacgtcc	6660
1162	atttataagc	tctctgcaag	aagaaaaata	tggctctttt	tgctgaccc	cacaggcagt	6720
1164	cagaccttat	ggttgctctc	gttccctaaa	aatcactggt	attctgttct	ttttcaaggt	6780
1166	gcgctgattt	catattgttc	aaacacacgt	tttacaatca	atttctacag	ttaacacaa	6840
1168	tatcacagtg	gtcctgaggt	gatgtatatt	atcagcttat	gaagataaca	ggattaagag	6900
1170	ataaagacag	gcataagaaa	ttataaaagt	attacttggg	ggcccaggcg	cggtggctca	6960
1172	tgctgtaatt	cctagcactt	tgagaggccg	aggcagccat	atcacaaggt	gaggagatca	7020
1174	agaccatcct	ggctaacatg	gtgaaacctt	gtctctcctg	aaagtacaaa	aaattagcca	7080
1176	gggtgggtgg	cggttgccctg	tagtcccagc	tactcaggag	gctgagacag	gagaatgggtg	7140
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1180	cgacagagag	agaatctgcc	tcaaaaaaaa	aaaaaagaaa	aaagtataaa	agtattactt	7260
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## RAW SEQUENCE LISTING

DATE: 05/18/2001

PATENT APPLICATION: US/09/830,706

TIME: 10:56:58

Input Set : A:\M3-007PCT\_SEQ.txt

Output Set: N:\CRF3\05182001\I830706.raw

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1642	ctttccttgg	catttttaggg	ttcatgagat	ttgtgtgtgc	cttgggaggc	agtcaagtcc	21120
1644	aaggcctgaa	gtttgctgat	gcagtgccca	agcccgggca	aatggaagct	tgaattagc	21180

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1652	acctggccaa	ttttttaatt	tttattttta	gtggagacac	gttttaccat	gttggccagg	21420
1654	ctggtcttga	actcctgacc	acaagtata	caccttcctc	agcctcccaa	agtgtctggg	21480
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1658	ctgtggccct	gggtggccac	actgctggct	gggagggcaa	ctgggtggct	ctgcagcggg	21600
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1664	ctagggggct	ctggctggga	tgggaagggg	caaggagag	cctctgagtc	aggagccatt	21780
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1838	ctcattcttc	atcttccctc	ttcacgtccc	ccagtttaaa	aaaagtgtga	aataaaaattc	27000
1840	acacgctata	aaatttagcc	ttttttagg	tacaattcag	tggtttttag	tacattcaca	27060

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1846	accacctact	ttctgtctct	atgaatgtga	caacactagg	cacctcgtgt	aagtgaatc	27240
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1880	aaactttttg	ggcagctctg	tggttgctct	aactgttacc	tatcccctca	ggcagctgtg	28260
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1884	tgaagttgga	tgaagatgac	cctatagtgt	ctgactctga	ctcttctttg	tgggggggct	28380
1886	ttgaaagacc	ccagctgagt	tctgctctct	ctgacacatc	actgttcagg	gctgccgctg	28440
1888	aggtgggagt	gggaccagag	tgagttaaaa	cacctgggag	ttccattctc	cactcagctt	28500
1890	cagctgtttt	tcctgacttt	aatgttccc	tgtgttgctg	caagcctgtg	gttaatttcc	28560
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1894	aactcctggc	ccagctctgt	gggttggtgg	ggcagagttg	aggaaggggc	cccgggggtga	28680
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1900	aaagtggctg	cagccaaagt	cttgaagacc	acggctctct	cggcctggag	gccacaccac	28860
1902	ctctgactta	gacccagggg	cagtcgggtg	gagggcagagc	aaggggaggt	tctgccactt	28920
1904	cttggtatgt	acccagcctt	ccacttcgtc	ctgtgcttac	tgtggaaaca	gggaaaggag	28980
1906	cggccccgag	gagcacaaag	acccccagtc	cttagaggcc	gtgggacttg	tctggccgcc	29040
1908	aggcagccac	agcagcctct	agagggggca	ggttgcttat	gcacagaggt	ggggctcagg	29100
1910	gctgcgtgac	tttgtaggat	gacactgtgc	agttgttcaa	ggcagctgct	gcagacaggg	29160
1912	tcccagtgat	ccctctcctt	ggcagctggg	ctcatgggtg	ttctgtctaa	agaaggccac	29220
1914	agccagcttc	cagcagccca	gcggctcattg	ggtttctctg	aggccccagg	cagagctgca	29280
1916	cgtgcatccg	caccagggag	cactgcacag	gggccctggc	ctggccccgc	cctgctctgc	29340
1918	acctcacggg	cagctgctga	cggctctttg	ggctcacagg	ggatccagca	ggcgtcctg	29400
1920	gtccttagga	ggcaggcagc	tcagggtctg	ttcgtctctc	ctgccacgcc	ctcccagggt	29460
1922	gtctgccaag	gcttgcttgc	gttttagtcc	ctttgattgc	cagacctttc	ggttttccct	29520
1924	gagtaaacct	gagaaattcc	tgactttatt	tttttttgcc	agttggaagc	ataaactgtt	29580
1926	tgagatccgc	ttcctccacc	agcacatctt	gttctcatgg	ccgctaaggg	gacgttcacc	29640
1928	ctgggcctcc	cacctgcttg	gccgcccctc	ttcagggtgac	ctgtatgatt	tctgggctca	29700
1930	gagcccaccc	gggcccagcc	tcgagagtgt	gaagtccgtc	ctggcttcag	ccaggtgccc	29760
1932	tcagagctgc	ccctcagtc	ctgcccacct	cagcctgtgg	cacttacccc	ctgtgcctcc	29820
1934	tctcctctgg	ctggccttgt	aggccacccc	tgccgcgcag	acacacctga	gctctgctgg	29880
1936	ccctgatttg	ctgacctgtt	ctctccccac	ttcctctctc	tgagtttggg	tccccagaa	29940
1938	cccagggtgt	gctccctggg	gctgcattgc	cctgtctgtt	tgatgtgtct	gtccagaacc	30000

## RAW SEQUENCE LISTING

DATE: 05/18/2001

PATENT APPLICATION: US/09/830,706

TIME: 10:56:58

Input Set : A:\M3-007PCT\_SEQ.txt

Output Set: N:\CRF3\05182001\I830706.raw

1940 cgggcagact tgaggggtcc cagctgtctg cctgtatggc cctgcagtt gctgtaccca 30060  
 1942 cctcaggccc tgtatcctgc tctgaaccag ggtcaagggg agggctcctg ggaacagagg 30120  
 1944 gaaaggttac cctgcgaggg caccgggacc tggagtgcag cagcttagat gcagacaggc 30180  
 1946 cacctgcagc cccaaagagg ccacagcctg cagacaagga ctggcagcag ggaagccctg 30240  
 1948 tgcattgtgt ccctgggaaa gctctgcttg attctgcaaa gctggcatcc tctttaagga 30300  
 1950 agccctagga caggccaaat ggagctcttg tccaaggggt catttctgtc ttgacagatc 30360  
 1952 gaaggtgcct tggaaatatg aatcacaaat gatgacatct tctggctgaa ggaatcccct 30420  
 1954 ggaacaaact aaggcctgcg cgtgcttggt ggggtcctct ttttgttcac cagagtgcgc 30480  
 1956 actggaccct tagagcctgt gctggtgctg ggctcctggg gctttctttc cggtttacct 30540  
 1958 aaaagaagga aaaaagcctt gttatttggt gccaggtgtg gtggctcatg cttgttagcc 30600  
 1960 tagcactttg ggagactgag cgggaggatt gcttgaggcc aggagttcga gatcagcatc 30660  
 1962 agcctgggca atatagttag acctctactc tacaacaaatc tgttttggtt ttttttttgg 30720  
 1964 cttttttttt laggtggagt ctactctgtg cggccagact ggagtgcatt ggcccaatct 30780  
 1966 tggctcactg caatccctgc ctcccagggt caagtgatcc tctgtcttca gcctccaaag 30840  
 1968 tagctgaaat tacaggcgcc caccaccaca tctggctaatt ttttgtattt ttagtagaaa 30900  
 1970 tgggggtttc ccatcttggt cagctgtggt ttgaactcct gacctcaggt gatccgccca 30960  
 1972 cctgctcctc ctaaagtgtc gggattacaa cgttgagcca ccacaccag cctacaaaaa 31020  
 1974 tctgaaaata ttaaccgagc atagtactgt gcacctgtag tcccagctac ttgggaggct 31080  
 1976 ttaggtggga ggattgcttg agcccaggag gttgaggctg cagtgcagctg tgattgcacc 31140  
 1978 actgcgctca gcctgggaga gtgagacctt gtctcaaaac taaacaataa acctgtgact 31200  
 1980 tgtgcccctc tgcagggtcg ttgatttact ctgtcctgtg gctgccttgg aggtaataac 31260  
 1982 aataacagga ctgccatata aatggagtca gctgtttggt atctaggcca gtggttgcca 31320  
 1984 aatgggggtc ccaggagccc tggggttcca gtgggtcccc tcaaggacat cagggagaac 31380  
 E--> 1986 attagggagg ggagagccag caatccctat cccaggtctc atctaaccac ctcactgtct 31440  
 1988 tctgatttgt acattgggtt tccctgaaat ctacgaaga ctccaaaggc ctcagaaaca 31500  
 1990 acatcttgat tgtggaaggg aggctagcag cgtgcaagtg gctctcactc cccatgggag 31560  
 1992 cagggtgcaga gtcactaaat gcattccgat gccacagag tgggccatcc cgaggtccca 31620  
 1994 ggtccaggca gctcctgcct gtgggggtgt gagacttcat gttggcaggg agcagagaga 31680  
 1996 ccaccagagg gcggcagagg cttggtcaat agcagtcctg agccttcccc aggagaaaaat 31740  
 1998 atcagtgtaa aagggtccca cttctgtgtg tggccgaatg tgcattggtg gcgtgcagat 31800  
 2000 gtgtgtgtgt tgtgtgtgt aatggtgtgt gtggtgtgt tgtgagtgtg gtgtgtgtgt 31860  
 2002 ggtgtgtgag tgggtgtgtgt gtgtgaaggg tgtgggtgtg tgggtgtgtgt gtgtgtgagt 31920  
 2004 ggtgtgtgtg agtgtgtgtgt gtgtggtgtgt tgtgtgaagg gtgtgggtgt gtgtgtgtgt 31980  
 2006 tgggtgtgtgt gtgagtgtgt tgtgtgagtgt gtgtgtgtgt ggtgtgtgtgt gtgtgtgtgt 32040  
 2008 gtgaagggtg tgggtgtgtgt tgggtgtgtgt gtgagtgtgt tgtgtgcgtg gtgtgtgtgt 32100  
 2010 tgtgtgtgag cagtgtgtgt gagtgtgtgt tgtgagtgtgt gtgtgtgtga atggtgtgtg 32160  
 2012 tatgtgagtg gtgtgtgagt ggtgtgtgtgt gtgagtgtgt gtgagtgtgt tgtgtgtgtgt 32220  
 2014 gtgtgtgtgt tgtgtgtatg tgagtgtgtgt gtgagtgtgt atgtgtgtgt gtggtgtgtgt 32280  
 2016 tgtgtgagtg gtgtgtgtgt gtgtgagtgt tgtgtcactg gctctgcttg tcattgtttc 32340  
 2018 acacttcacg gggcatcttt gtgtgggggtc aggaactggat tcccttgaat ggatgtggta 32400  
 2020 tagttccttt gacctttctc ttgttaatga gcatctcagt agtttctctt cttcatcatt 32460  
 2022 atcaatgctg cagtgaacac cttggagggt catctgttta ccatcagaag tgcttctgac 32520  
 2024 acattttccc aattattcat tgtgataaaa cagacatagt ataaaaat tta ccaactttaac 32580  
 2026 cttttttttt tttttttttg aaacagagtc tcaactctgt gccaggtctg gagtgcagtg 32640  
 2028 gtgcgacttc ggctcactgc aacctctgcc tcccgggttc aagcgattct cctgtctcag 32700  
 2030 cctctgagtg agccgggact acaggtgtct gccaccacac cccgctaatt ttttgtgttt 32760  
 2032 ttagtgagga tgggggtttc ccatgttggc caggctgtgt tcaaacctct gacctcaggt 32820  
 2034 gatccacctg ccttggcctt ccaaagtgtc gggattacag gggtagacca ccacgccag 32880  
 2036 cccacgttaa ccatttttta gtatacagtt caatggtatt aaatgtatta ataattgtct 32940

see item 10  
 on Encl  
 Summary Sheet

FYI

**Please Note:**

Use of n and/ r Xaa have been detected in the Sequence Listing. Please review the Sequence Listing to ensure that a corresponding explanation is presented in the <220> to <223> fields for each sequence which presents at least one n or Xaa.

## RAW SEQUENCE LISTING

DATE: 05/18/2001

PATENT APPLICATION: US/09/830,706

TIME: 10:56:58

Input Set : A:\M3-007PCT\_SEQ.txt

Output Set: N:\CRF3\05182001\I830706.raw

2038	gaaacccatca	ccactatcca	tgtctggaac	tcttttcate	catgttgat	ctgcatttcc	33000
2040	ttcttttttaa	gactgagtaa	tattccattg	tacaggcaca	ccacattttg	tttatccatt	33060
2042	catctgtcag	tggacaccca	agttgcctct	gcttcttggc	tgtgtgagc	agtgtgccc	33120
2044	tgaacatagg	tgtgcaata	cctcttgaag	acctttcagt	tcttttgat	gcaaaccag	33180
2046	aagtgggatt	gctggatctt	atggtcttga	ggaacctcca	tcctgttccc	aacagcgccc	33240
2048	acaccatctt	acattctcac	cagcagttca	ggaggactct	gggtcccca	catcctcgcc	33300
2050	agtgcattgt	gttttctgtt	tttcttctt	taatttttat	tttttcttt	aaactgtttt	33360
2052	cttgatgttt	tctgtttttt	tgacagtggc	catcctagt	gctgtgaggt	ggtcttatac	33420
2054	gctttacaag	gggagctgcc	cttccgtctt	aacactttgt	gctgacaggc	caattccatg	33480
2056	tgtactctgc	ctgcttccct	gtccttggt	actcaggcat	cagctttttg	ataagacaca	33540
2058	aaacagaaag	gagcctctcc	ttccatcccc	ctggcctggg	cagtgggtcac	tgctacccat	33600
2060	ggcgcccaca	ctctcctgag	agcagtcact	gctacccacg	gcgcccacac	tctcctgaga	33660
2062	gcggtcactg	ctacccacgg	tgacccaca	ctctcctgag	agcagtcact	gctacccacg	33720
2064	gcgcccacac	tctcctgaga	gcggtcactg	ctacccacgg	cgcccacact	ctcctgagaa	33780
2066	cggtcactgc	tccccacggc	gcccacactc	tcctgagagc	tgctactgct	acccacggcg	33840
2068	cccacactct	cctgagagct	gtcactgcta	cccatgggtg	gcccacactc	tcctgagagc	33900
2070	gttactctgc	acccacggcg	cccacactct	ctgagagcgg	gtcactgcta	cccatggcg	33960
2072	ccacactctc	ctgagagcgg	tcactgctac	ccacgggtgcc	cacactctcc	tgagagcggg	34020
2074	cactgctacc	caaggcgccc	acactctcct	gagagcggtc	gctgctaccc	atgggtgcgc	34080
2076	caactctctc	tgagagcggg	cactgctacc	caaggcgccc	acactctcct	gagagcggtc	34140
2078	actgctactc	atgggtgcgc	cacactctcc	tgagagcggg	cactgctatc	cacggcgccc	34200
2080	acactcctga	gagcgggtcac	tgctacccac	ggcgcccaca	ctctcctgag	agcgggtcact	34260
2082	gctactcacg	gcgcccacac	tctcctgaga	gcggtcactg	ctacccacgg	tgacccaca	34320
2084	ctctcctgag	agcgggtcact	gctacccacg	gtgcacccac	actctcctga	gagcgggtcac	34380
2086	tgctacccac	ggcgcccaca	ctctcctgag	agcgggtcact	gctacccacg	gcgcccacac	34440
2088	tctcctgaga	gcggtcactg	ctacccacgg	tgacccaca	ctctcctgag	agcgggtcact	34500
2090	gctacccacg	gcgcccacac	tctcctgaga	gcagtcactg	ctacccacgg	tgcgcccaca	34560
2092	ctctcctgag	agcgggtcact	gctacccacg	gcgcccacac	tctcctgaga	gcggtcactg	34620
2094	ctactcacag	cgcccacact	ctcctgagag	cggtcactgc	tacttacggg	gcgcccacac	34680
2096	tctcctgaga	gcggtcactg	ctacccacgg	tgcccacact	ctcctgagag	cggtcactgc	34740
2098	tacttacggg	gcccacactc	tcctgagagc	gggtcactgct	atccacggcg	cccacaccct	34800
2100	cctgagagcg	gtcactgcta	cccacggcg	ccacactctc	ctgagagcgg	tcactgctac	34860
2102	tcacggcgcc	cacactctcc	tgagagcggg	cactgctact	catgggtgcg	ccacactctc	34920
2104	ctgagagcgg	tcagtgtac	ccatgggtgcc	cacactctcc	tgagagcggg	cactgctacc	34980
2106	catggcgccc	acactctcct	gagagcggtc	actgctatcc	acggcgccc	cactctcctg	35040
2108	agagcgggca	ctgctactta	cgggtgcgcc	acactctcct	gagagcggtc	actgctaccc	35100
2110	acgggtgccca	cactctcctg	agagcgggtca	ctgctactta	cgggtgccca	actctcctga	35160
2112	gagcgggtcac	tgctatccac	ggcgcccaca	ccctcctgag	agcgggtcact	gctacccacg	35220
2114	gcgcccacac	tctcctgaga	gtggtcactg	ctacccacgg	cgcccacact	ctcctgagac	35280
2116	tgtgctgagc	ttgtgctggg	ttccatcgac	tgctgctgc	cttccattgg	acccactgat	35340
2118	cgtgggtttgt	ctttggactt	ggtgatagta	tttcatgcag	aaatttttaag	tttttctgtt	35400
2120	gtcacaccaa	tcactttttc	ctgttatgcc	ataattttctg	ggttatctgt	ttttttatct	35460
2122	ttgagacagg	gtcttgctct	gtcgccaggg	ctggagtga	gtggtgcgat	catggctcgc	35520
2124	tgagccttg	atctcctgga	ttcaagcaat	tctcctgcct	cagcctcctg	agtagctggg	35580
2126	attacaggcg	ctcgccacca	cgcccagcta	atgattatct	tttttagggc	aaggactcgc	35640
2128	tatgtggccc	aggctagtct	tgaactcctg	ggctcaagt	atcaccctgg	cccctcaaag	35700
2130	tgtgtggatt	acaggtgtga	gctacggcac	ccagactgtt	tttttaactct	ttgactatct	35760
2132	gctgagttac	acatgatctg	actctgtttg	catttgctgt	gatcagtggt	cttttcacac	35820
2134	atttacctga	aaagcctcgt	gtcacagcct	catttgagat	gagcgtgtct	gtgagcatgc	35880

## RAW SEQUENCE LISTING

DATE: 05/18/2001

PATENT APPLICATION: US/09/830,706

TIME: 10:56:58

Input Set : A:\M3-007PCT\_SEQ.txt

Output Set: N:\CRF3\05182001\I830706.raw

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2140	gcttgtggtg	cagattttct	cagcttctag	tgtcttttaa	cttgtgtgat	gtacaaatgg	36060
2142	tttaagtttt	ttttaatgta	acttaaatct	tttacactta	gtggcttttt	gattttattgc	36120
2144	atgttcagaa	aggcctgccc	cacccccaa	attttttttt	ttttttttta	agccctgtat	36180
2146	tttccttatg	ggcgtccaca	agtcggattt	tcttttaact	ccttgggctg	gctgcacttc	36240
2148	ttctgcggtg	tgggtggagat	gggttgccc	ggccccagtg	cccatctcga	ggcactgttc	36300
2150	tcaactcggcg	tcctgagttc	tgcctgtgcc	tctggttgtc	tttcacgtag	gcttctctgg	36360
2152	gtggagtctg	gatgcccttc	cagccctgc	aggatgcttt	gtctgctgga	ccttcaggga	36420
2154	aatggccttg	gatgtctggc	agccccagga	tgtctgctgg	gccccctgat	gtactggggg	36480
2156	cttcgggtgac	ggctcactga	gccccagcact	ttcacacccc	togttgtgcc	tgttcccctc	36540
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2160	gtctccctag	caaggtggct	ggggcttggg	gagcgctcct	ctgcaaccct	gtgctggggg	36660
2162	cagctggctc	ggccgggaag	acacagctcc	agatattttg	ttcagaaaag	aaactgcagt	36720
2164	gtttattttc	ttcagaaaaa	aaacatttag	aagatttttt	ttaaagctct	ttcgtttaga	36780
2166	aggaatctag	gtatgttatt	gttttaagaa	aaaagtgttt	gcaatgtatc	agtcacccgt	36840
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2170	atccctgtac	gatgcttctg	tgaataatgc	gcttttgtcc	ggcgctgtta	atgcaagtgt	36960
2172	taacagtgtg	atatgggagt	cagtgtttac	atgttacatt	cctctgctgc	agtcaaaata	37020
2174	agcccgagg	gtctacagta	gcatttctgt	attttatcag	cttgggctgg	ggctgagggg	37080
2176	aggcctccac	tcacacttgg	aggggctggt	tctgccagat	ttatttgcct	tataaatatt	37140
2178	ccccatgttt	attttaactc	gcctttaaaa	tggagctgaa	attaatatgg	accccggggc	37200
2180	tgtccctctg	gcccctgagt	gcctcccgta	tgcgggtggg	acatttctac	ctggtcccat	37260
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2184	cactctgtcc	cctggttggc	tcctccacca	aggaggctcc	ctgtccccct	ggccccaggc	37380
2186	cctcggtggg	ctctgcggcg	tgcacagagg	ctccctcgtc	cctctctact	acaggcacag	37440
2188	gctgccacca	ggaactcctt	tcacgcgacg	tctgtgtggg	gcccactgcc	gggagctcca	37500
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2192	cacttttgcc	ccagagaggg	cactcaggga	tcacagtga	cctcgggccc	caagttggga	37620
2194	gcccccttcc	tcctttgttt	gcatccaggt	cctaggggag	ccagggctgg	acagatggca	37680
2196	gaggcagggg	gatcgtgtcc	aagctcagtc	aaggggagac	agaattaaac	agtgcacttc	37740
2198	actaaacagc	catatgctgg	caaaatgggg	ccatacctgt	tgaccagagt	gggctgagca	37800
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2202	aagcagtgtg	agcttgtggg	tgggtgagca	ggacccttga	gtgcactggg	gtggggcggg	37920
2204	ggacgttctg	gctgccccac	tcccatagcc	acgccctggc	gcaagggaact	gtcctcccag	37980
2206	tcttgggtgg	gacctgggga	aggactccag	gtcggctcct	gtcccgctc	tgccatgcag	38040
2208	atgcccgctt	tgtgcccagc	cgtttgcctt	ttctgctgtg	ttgtgtcttt	ccttctctgg	38100
2210	aactgcaaga	caggttgaag	aagagaggag	gtttctgggg	aggtacagtg	accctgggca	38160
2212	ggcagtggag	cccctctggg	aacaatggcc	actgcaggga	ggcaggggtg	cggaggggca	38220
2214	cgtgacccca	aatgactagg	ctcagagggg	gcatgcagcc	ttgcaaacca	aaccttccat	38280
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2218	ccggggagct	cctttacaga	ggcaggcact	gggggtcggg	atccaagtgc	agccaagagg	38400
2220	agccccaggg	ccagaggggc	ctggcaatta	aggggggcca	aggagctgag	ctccaactcc	38460
2222	agtcccacag	ccgcacaatc	ttcctgccac	ttcctgacct	ggagggtgct	ctccaccggg	38520
2224	aagcctccgc	acccggcagg	gacttggggc	ccgccagtgt	gccttgtctc	tgctctttgc	38580
2226	acaccacagg	ccctgggctt	cgtcttctcc	ctcagtgcc	ggttttgag	ctcaggtgcc	38640
2228	ctaaccccaa	tatagggagt	tgtggtccct	ctattctagt	cctccctctt	gctgtgtctg	38700
2230	taggtccgct	ttctgcaaa	cagggctctg	agctggcaac	actgggatgg	ggccgagggc	38760
2232	gtgaatgaga	ccgcagcctc	ctctcaggtc	cgataacgga	agtactgctt	cccggaaaca	38820



## RAW SEQUENCE LISTING

DATE: 05/18/2001

PATENT APPLICATION: US/09/830,706

TIME: 10:56:58

Input Set : A:\M3-007PCT\_SEQ.txt

Output Set: N:\CRF3\05182001\I830706.raw

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2238 cccacacact gggccctggg ggaggggctg cagccagcca ggctgtcca ccctctgagg 39000
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2242 tttttataac ttgggctggt ttaaggctgc ctgtcagtggt gtcattgaaa gagcttttat 39120
2244 ttgacctta ggaagtccgg aagccagcca ggtactgcga tcatttttct ctcttcctaa 39180
2246 gcacaagagg gaagaagata aattttatct tgggaagaac cacagccatt tgggagaaaa 39240
2248 ttttaatttaa gtggcacatt ccgctgggtgt gatgggatgt ccttgtgttc agcaataggg 39300
2250 agaccagctg tcctcctggg gcttgttacc agactgcaaa gccctgccca cctctctgtg 39360
2252 tgcgtccctg tggctaagac atgacaaggt agggctttca gtggcatttg ttacagggcc 39420
2254 agcacacaga ggctccggcc cagcatctgc cctgaggggg ttgggtgggg cggcggggtt 39480
2256 ccagccaagc cggggaagga ggcccttgta gacccccag ccctgtgtg cctccctggg 39540
2258 gcatctgcag cttggcgggc catctgggat ttcctgggct ggcaggacct ccaaggggcc 39600
2260 aggtgcctcc catgagactc actttgtgtg agtattccct ctggagagca ggccttcaag 39660
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## RAW SEQUENCE LISTING

DATE: 05/18/2001

PATENT APPLICATION: US/09/830,706

TIME: 10:56:58

Input Set : A:\M3-007PCT\_SEQ.txt

Output Set: N:\CRF3\05182001\I830706.raw

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## RAW SEQUENCE LISTING

DATE: 05/18/2001

PATENT APPLICATION: US/09/830,706

TIME: 10:56:58

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Output Set: N:\CRF3\05182001\I830706.raw

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2434	gaggtgggag	gagccaggcc	tgtcatctcc	agactcccag	tgccaccccc	aggctgactc	44880
2436	agagacgtgt	ccctccaccc	gtgtggccat	atgttgttcc	atcctaaagc	tatggcacac	44940
2438	tcccatcatg	tccctcagtg	caaaccaccc	gagccctgtg	gtagggacgc	agtgtctagg	45000
2440	aaggcctcag	agccttcaga	tgtggggagg	gtgagctggc	agtggacgga	ggaggaaagg	45060
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2448	ctctctgcag	acagccagcc	ctgcccggcg	ggccagactc	ccacacacgc	catctagagc	45300
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2470	tggaaactaca	ggtacctgcc	accacgcctg	gctaattttt	tgtgtttttt	agtagagaca	45960
2472	gtgtttcacc	gtgttagcca	ggatgatctc	tatctcctga	cctcgtgatc	cgcccgcctc	46020
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2476	tcttttagag	atagagtctc	actctgtcgc	ccaggctgga	gtgcagtggg	gtgatcacag	46140
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2522	cagggtctct	ctctgttgcc	taggaggagt	gtggtggtgt	gatcatagct	cactgcagcc	47520
2524	tccacctccc	aggctcaatc	aatcttccca	tctcagcctt	ctaagtgtctg	ggattacagg	47580
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## RAW SEQUENCE LISTING

DATE: 05/18/2001

PATENT APPLICATION: US/09/830,706

TIME: 10:56:58

Input Set : A:\M3-007PCT\_SEQ.txt

Output Set: N:\CRF3\05182001\I830706.raw

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## RAW SEQUENCE LISTING

DATE: 05/18/2001

PATENT APPLICATION: US/09/830,706

TIME: 10:56:58

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Output Set: N:\CRF3\05182001\I830706.raw

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2632	aggaggggac	tgcgtaaaacc	tgggggtccc	acagccaggc	agctgtttgt	cctgagtgcc	50820
2634	agggaggggtg	gccacaggtc	tgcctggggc	cttgtgatat	ggcagggtgag	acgagacca	50880
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2644	gagagggatg	gggtcccagg	agatgatgat	gggggtctgg	gggtcccagg	aggggagctg	51180
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2658	ctcagggatg	cgccttctgt	cagctgcgtg	aaaccaagtt	tgtggctatg	ctcttcccg	51600
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2664	tatttttagtg	caaatttagt	ttgtaattaa	tgacatcaag	agagacccaa	atctgcctcc	51780
2666	attgtgagtt	tgatattttt	tgaagtgggg	ccaagatgaa	cattcatgga	gctcttccca	51840
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2712	ggctcattga	gaaggtgcga	ttccagaaaa	aaaaaaaaaa	agaagataaa	tattttaaaa	53220
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TIME: 10:56:58

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2732	ggggccaggc	tggctggaca	agcatgggtg	ctgccctcca	tctcctgggc	cattgacagc	53820
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2736	tggccacaca	tggagatggg	ctgtcctgcg	tcagggtg	tgcactgtg	ggcctggggc	53940
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2818	tgggtgcagc	gtcagatggt	ctgttccggc	acggagcagg	caccaggaag	tgtgtggcct	56400
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PATENT APPLICATION: US/09/830,706

TIME: 10:56:58

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PATENT APPLICATION: US/09/830,706

TIME: 10:56:58

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DATE: 05/18/2001

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TIME: 10:56:58

Input Set : A:\M3-007PCT\_SEQ.txt

Output Set: N:\CRF3\05182001\I830706.raw

3018	tgaaagcacc	agggcccccga	agatgcctct	gtgctgtccc	caccttgccag	ggccatgaat	62400
3020	ctcactctac	ccagaaaagt	ttctcccgag	ggcctccgac	ctctgcttcc	acccccaccc	62460
3022	ccccaccac	cctgcacctc	gtcttcctgg	actgcccagg	gtttctccca	ggcgagagcc	62520
3024	ccccgcccc	cgccccccac	cacatcctga	taccatcct	cttccagctt	cttccaggct	62580
3026	caggcactca	cccttgagga	aaggggtttt	catcgagcaa	gcctgctttg	ggggtctgct	62640
3028	ctggcaggtg	gctgtggctc	cggggtggcc	tggagggatg	cgggggctct	gaagcctgcc	62700
3030	ggcccggtgt	agctggaagc	cttcggtgcg	gtttcatctt	gctgccgctg	cagcttgccag	62760
3032	gcacccagag	aaaccggagc	ctgcagcctg	ggcgggtggg	cctgcggcct	ttggggatga	62820
3034	gacactgggc	tccagggtcg	gccccctccc	cctgcacccc	agaactctcc	atcaacagga	62880
3036	cgggcctgac	agggacagct	tcccggaggc	actttatttg	ctatttttgt	ttgattcatc	62940
3038	acaagtgtgc	tgggacatat	gttcctggca	ttttataatg	ttgttttatg	tttcacaatg	63000
3040	ttgaatggcc	aaatactctg	tttgttttct	tttcaattct	gtottagtta	gaacaatatt	63060
3042	ctctgaagtt	ccattaattt	ataatggctg	tacagcacat	gtgagggccc	cactcatttt	63120
3044	ttacttggtc	gcagccccgg	acacgtgtgc	gagcccttca	ggggtgctga	aagcctttgt	63180
3046	ccaacagctc	cggctccggt	gtggccacag	cggccttgct	ccagtgaagg	ccaagcaaac	63240
3048	accagggtgc	ctgaggggag	ccagggtggc	tcctgtcac	ccattcttgc	ctccaccatt	63300
3050	tgttggtggg	gagctacgtc	caccaggtt	tgtgtgcct	ggcctggctg	cttggtattg	63360
3052	ctgatgcctg	ctctgctgct	gtggtttacg	ggggtcccag	gcctgggtgg	gacagggtct	63420
3054	gtcctgcaga	gcattggtcc	agccactggc	tgctgtcacg	tgagagggcc	tgacacaccc	63480
3056	ccgtggccag	ccaagccctc	atccccatcc	cagaccagac	cttcaggcca	gatggatggt	63540
3058	tcctgccccg	catgacctg	ccttgcctcc	gcagcctgtg	ggagctgcag	gtgccacgag	63600
3060	gtttgtttgt	cgcagcactg	atccagggtt	ggtatcctgt	cctcaggctc	atcacgccc	63660
3062	ttataaacca	ctggagtcca	cgggtggctg	acgagatgca	tcccagtgtt	atgtaaaggt	63720
3064	gagcatccct	gtggccccag	gtgctgagga	tgagagggag	ggtggcaaac	agcctggcag	63780
3066	ggtgaacacc	cgaggactgg	ccccacccat	gcctcccagg	cagggtgcag	ggtggatgca	63840
3068	gggtggacgc	aaccagccc	cctcctgggc	tgggtggctga	gatgtgcggc	tttcagatgg	63900
3070	tgtgcctgag	ggagccccc	cagctggtgc	tgggcctgca	tttccttggc	cccaacgcag	63960
3072	gcgaagttac	tcaaggattt	gctctgggga	tcaagtaagt	cccaggaagt	gcaggtgcg	64020
3074	atgcgatgtg	cagctgggta	tcctcagagt	gccggcagtc	ctacagtgga	gagctgctgc	64080
3076	cactcttgcg	gcatttatgt	ggccttcgtg	ggtttgcagc	agagattcct	caggccctc	64140
3078	agacagggcg	ggttttaggg	ggacaagagg	cggttctgcc	ccagccagac	gctgttgagc	64200
3080	cagccagagc	cagggtgaggt	gtccctgtg	gccccgggtc	gctgctaggg	cccttgccc	64260
3082	cctggccaag	caccacgcca	ccatgagcag	agtgccagta	cctggagagc	cacccaggg	64320
3084	ctgctgtgtg	tcttctggag	ctggggccat	tgctgggtc	ttgggctcag	gctgtgtgtt	64380
3086	ttcgggggtcc	cgggggtcaaa	ggaagccatg	gcaaaggctc	tgggtgggtt	gacaggggta	64440
3088	gttgagggtt	gggacattgt	gcattggcctg	agagaggtgg	ctggctggat	gtggggcctg	64500
3090	ggaggtggtg	gtgtggtgag	gccaggatgc	gctgtctgtg	ggtaaagcag	agagcagagg	64560
3092	cctaaggcag	gactgtgcct	agcaggggag	gatggaacag	caggaaagcca	ggccagggca	64620
3094	agccagggcg	tggctgggtg	ggaggtgggc	tggacgagca	ctaggcatct	gctgggaggg	64680
3096	aggtggtgag	caccacggg	tgtgggcagg	ggtcctggct	gctggctggg	ggtcagggga	64740
3098	cagtgaggag	accagcagcc	tctgaggccc	tcctcttccc	gggggtggga	tgctgtggac	64800
3100	ccccctccct	gtgctgaccc	cgctgcctc	ccccatcccc	catgtgcagg	tgtggggctt	64860
3102	cctatgcgca	ggtgatgcgg	accgtgggta	tccatccac	atgctctgag	gaggtagtca	64920
3104	agctgcgcac	ctccacgcgc	tcaggcctgg	acccacgggt	gacaggctgc	tgagggttaag	64980
3106	cgccatccct	gcaggccagg	gcacacgggt	cgcccgccgc	cagctcctcg	gaggccagac	65040
3108	ccaggtatgc	aggtggggct	ggctctgttt	gaggacaggg	catgtggcag	gggtgcagga	65100
3110	gccctggcca	tgggtccct	ccaggtgtac	agcaaggcta	cacctgccac	gccacccaga	65160
3112	atgggtgctc	catctgttaa	ccaggccaca	gcgggtgacag	gcagaagggg	aagttcccag	65220
3114	gggcccacaa	ctccccggg	gacccagac	ccggcctgg	ccacagctgc	tccccacaca	65280

## RAW SEQUENCE LISTING

DATE: 05/18/2001

PATENT APPLICATION: US/09/830,706

TIME: 10:56:58

Input Set : A:\M3-007PCT\_SEQ.txt

Output Set: N:\CRF3\05182001\I830706.raw

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3116 caggaggtat caagaaacgg ggctcatcct tagcagccta tcccaggtgg atgttggcgt 65340
3118 ggaaggtgtc ccgggtgggc taaagtcggg catctcaagt tgctgcccc cagggggctg 65400
3120 cagtcgggaa gctggcctcc caccgaggcc tcccaccaag gcctggctcc tgcagagttc 65460
3122 agcgcccgct catttcccta tctcccagaa ggtggagacg ctgccctgtg atggccggcc 65520
3124 ctgcccagcc tgccctgcac atctggttct gttccagctc tgcagagcca ggctgaccgg 65580
3126 ggggcatgtt gttcatcgtg acctcttctg gggaggaaga aactggcaag ggctcctggc 65640
3128 ctctgcccc gggatgcctg tgccagagcc ccctcgctc gtggtctaata agtgcatact 65700
3130 ccggcctggg ctgcagggca ggggcccggg cagggtgggc cctcagccc tgccatccag 65760
3132 cccacctggg gcacccccat ggctgtcagc ccctcccagg gttggggtgt ttgggctcca 65820
3134 tctctcccc ggggctgagg tggagaccag gcagagcagt gggtccccc caagatgcct 65880
3136 gtggacaggc tctaggtct gcatggcgcc gaggggctct ggggaggcct ctctgggggt 65940
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3140 ataaacaaag ggcatactya ggaaactctt atcagaacat tacacctccc agagctgttt 66060
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3144 ccctgtgacg catcgccctg ggggtggggc attctctgct gggtttattt ctcacccatc 66180
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3148 gtggctgacc tgtgtgacc ttctgttgt tggcaggatg gctgcaggcc aggtttgggg 66300
3150 ggctcaacc ctctcttga gcgcctgtga gatggtcagc gtggagcgca agtgctggac 66360
3152 ggggtggccc tgtgcccac agggatggct caggggactg tccacctcac ccctgcacct 66420
3154 ttcagccttt gccgcccggc acccccccca ggctcctggt gccggatgat gacgacctgg 66480
3156 gtggaaacct accctgtggg caccatgtc cgagccccct ggcatttctg caatgcaaat 66540
3158 aaagagggta ctttttctga agtgtg 66566

```

## VERIFICATION SUMMARY

DATE: 05/18/2001

PATENT APPLICATION: US/09/830,706

TIME: 10:56:59

Input Set : A:\M3-007PCT\_SEQ.txt

Output Set: N:\CRF3\05182001\I830706.raw

L:12 M:270 C: Current Application Number differs, Replaced Application Number  
L:13 M:271 C: Current Filing Date differs, Replaced Current Filing Date  
L:170 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:1  
L:291 M:258 W: Mandatory Feature missing, <220> not found for SEQ ID#:2  
L:291 M:258 W: Mandatory Feature missing, <221> not found for SEQ ID#:2  
L:291 M:258 W: Mandatory Feature missing, <222> not found for SEQ ID#:2  
L:291 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:2  
L:433 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3  
L:548 M:258 W: Mandatory Feature missing, <220> not found for SEQ ID#:4  
L:548 M:258 W: Mandatory Feature missing, <221> not found for SEQ ID#:4  
L:548 M:258 W: Mandatory Feature missing, <222> not found for SEQ ID#:4  
L:548 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4  
L:549 M:252 E: No. of Seq. differs, <211>LENGTH:Input:492 Found:494 SEQ:4  
L:1986 M:340 E: (46) "n" or "Xaa" used: Feature required, for SEQ ID#:37

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